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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,267	12/02/2003	Edmund Schuller	S&S-1202A	3358

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DORITY & MANNING, P.A.
POST OFFICE BOX 1449
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EXAMINER	
LANGDON, EVAN H	

ART UNIT	PAPER NUMBER
3654	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/726,267	SCHULLER ET AL.	
	Examiner	Art Unit	
	EVAN H. LANGDON	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 March 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *25,26,30-32,36,38-40 and 47-68* is/are pending in the application.

4a) Of the above claim(s) *25,26,31,32,36,47 and 48* is/are withdrawn from consideration.

5)☐ Claim(s) *38-40* is/are allowed.

6)☐ Claim(s) *49-61,63 and 65-68* is/are rejected.

7)☐ Claim(s) *62 and 64* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 49- 52, 56, 57 and 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyajima (US 5,276,460) in view of Labesky (US 5,833,776).

Miyajima disclose a friction ring for friction driving a roll; a friction roll 32 defining axial and radial directions, the friction roll comprising at least one rotatable roll body 32 for driving the spool, the at least one rotatable roll body 32 having a body width along the axial direction and having at least two portions, one portion 3_2 with a radius of r1 (D_2) and another portion 32 with a radius of r2 (D_3), wherein the radius r1 (D_2) is less than the radius r2 (D_3) (see Fig. 3), the friction ring comprising:

a belt 31 having a belt width that is less than the body width of the at least one rotatable body; the belt being positioned upon the portion 3_2 of the rotatable roll body having a radius of r1 (D_2).

Miyajima fails to show the belt 31 removable by having two open ends bound together by a fastening apparatus.

Labesky teaches a flexible ring 10 with ring fastening means in general having two open ends bound together by a fastening apparatus 24, 26. The recitation with respect to the manner in which a claimed apparatus is intended to be employed does

not differentiate the claimed apparatus from prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the friction belt of Miyajima to include a fastening means general having two open ends bound together by a fastening apparatus as suggested by Labesky, to more easily remove the friction belt of Miyajima.

In regard to claims 50 and 51, Miyajima as modified by Labesky teaches the fastening apparatus comprises two connectors 24, 26, whereby one of the connectors is secured to each of the connectors is secured to each of the open ends of the friction ring, where the connectors include hooks (Labesky Fig. 1 and 2) that connect by radial movement relative to each of the ends.

In regard to claim 56, Miyajima as modified by Labesky teaches the friction ring 31 is constructed with a curvature that conforms to the curvature of the at least one rotatable roll body.

In regards to claims 57, Miyajima as modified by Labesky teaches the ends of the friction ring are joined by an adhesive (Labesky, col. 9 lines 11-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the fastening ends of Smith as modified by Labesky to include an adhesive joining the interlocking elements as suggested by Labesky, to secure the engagement of the interlocking elements.

In regard to claim 67, Miyajima as modified by Labesky teaches an apparatus for friction driving a spool on a textile machine, the apparatus comprising: a friction roll 32

having at least one rotatable roll body 32 disposed thereon, the rotatable roll body having a portion 3_2 with a radius of r1 (D_2) that is axially adjacent to a portion with radius r2, wherein radius rl is less than radius r2; a friction ring carried on the portion of the rotatable roll body having a radius of rl, the friction ring positioned axially adjacent to the portion portion 32 with a radius of r2 (D_3), the friction ring configured as a flexible belt 32 with two ends 24, 26 (Labesky); and a fastening device 24, 26 (Labesky) that binds together the two ends of the friction ring.

In regard to claim 68, Miyajima as modified by Labesky teaches the fastening device 24, 26 (Labesky) creates a joint that extends along the axial direction of the rotatable body and across the entire width of the flexible belt (Fig. 1, Labesky) when the fastening device 24, 26 (Labesky) binds the two ends of the belt together.

Claims 53-55 and 58 rejected under 35 U.S.C. 103(a) as being unpatentable over Miyajima in view of Labesky as applied to claim 49 above, and further in view of Burke et al. (US 5,507,226).

Burke teaches a friction roll having a friction ring 14 constructed from elastic material (col. 3 ll. 64 to col. 4 ll. 62, Burke) and an auxiliary fastener (col. 4 ll. 49-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the belt of Smith in view of Labesky to include an elastic material as suggested by Burke to increase the coefficient of friction, since combining prior art elements according to known methods will yield predictable results.

Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyajima as modified by Labesky as applied to claim 49 above, and further in view of Smith (US 1,554,253).

Smith teaches a friction belt having plurality of grooves 33 oriented perpendicular to the length of the belt. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the belt of Miyajima to include grooves oriented perpendicular to the length of the belt as suggested by Smtih to better grip the material, since all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Claims 60, 63 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burke et al (US 5,507,226) in view of Labesky (US 5,833,776).

Burke discloses an apparatus for friction driving a spool, the apparatus comprising a friction roll having at least one rotatable roll body 12 disposed thereon; and

a friction ring 14 carried on the rotatable roll body, the friction ring comprising a belt that is removable and constructed from an elastic strip of flexible material(col. 3 ll. 64 to col. 4 ll. 62, Burke)

Burke fails to show the friction ring 14 removable by having two open ends bound together by a fastening apparatus.

Labesky teaches a ring 10 with ring fastening means in general having two open ends bound together by a fastening apparatus 24, 26, the two ends connected or separated from each other by displacement of the one end relative to the other along a radial direction of the roll body. The recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from prior art apparatus satisfying the claimed structural limitations. *Ex parte masham,* 2 USPQ 2d 1647 (1987).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the friction ring of Burke to include a fastening means general having two open ends bound together by a fastening apparatus as suggested by Labesky, to more easily remove the friction ring of Burke.

In regard to claim 63, the limitation that the cross-section is about constant when subject to a tensile force equal to that of installation on the roll body and where the ring exhibits a width that diminishes with increasing distance from the ends of the friction ring when no tensile force is acting on the friction ring are properties that are inherent to an elastic material that is ring shaped and subject to a tensile force.

In regard to claim 66, Burke as modified by Labesky teaches the fastening apparatus comprises two connectors 24, 26, whereby one of the connectors is secured to each of the connectors is secured to each of the open ends of the friction ring, where the connectors include hooks (Labesky Fig. 1 and 2) that connect by radial movement relative to each of the ends.

Claims 61 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burke in view of Labesky as applied to claim 60 above, and further in view of Smith.

Smith teaches the axial position of the at least one belt along the rotatable roll body is maintained by differences in the radius of the rotatable roll body and a plurality of grooves 33 oriented perpendicular to the length of the belt.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the roll body of Burke in view of Labesky to include different radii to hold the belt in its axial position and to have a plurality of grooves for gripping as suggested by Smith, since all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Allowable Subject Matter

Claims 38-40 are allowed.

Claims 62 and 64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments, see response, filed 13 March 2010, with respect to the rejection of claim 49-54, 56, 57 and 59 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of new discovered prior art.

Applicant's arguments filed 15 March 2010 with respect to the rejection of claim 60, 61, 63-66 under 103(a) have been fully considered but they are not persuasive.

The Applicant contends that the ends taught by Labesky "cannot be separated by moving along the radial direction . . . ." Response at 12-13. However, Labesky's ends 34, 26 are initially unhooked from each other by moving along the axial direction, then separated from each other by moving along the radial direction. Therefore, the ends taught by Labesky are "configured" to move along the radial direction.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EVAN H. LANGDON whose telephone number is 571-272-7057. The examiner can normally be reached on Monday through Friday, 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Q. Nguyen can be reached on 571-272-6952. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/EVAN H LANGDON/
Primary Examiner, Art Unit 3654
20 May 2010